Agilent 6570A Series Single-Output, 2000 W DC Power Supplies

Data Sheet

Speed and accuracy for test optimization

- Front panel and analog control of output voltage and current
- Fast, low-noise outputs
- Fan-speed control to minimize acoustic noise
- Protection features to ensure DUT safety

This series of 2000 watt DC power supplies has the exceptional, proven reliability that test system engineers look for. It also has the unusual combination of high efficiency and low noise operation.

These DC power supplies can be controlled either from the front panel or via an analog programming voltage. When used in a test system, the fast up and down programming helps decrease test time. Quickly reacting protection features, including CV/CC mode crossover and over-voltage protection help protect your valuable assemblies from damage.

Lab-bench use is enhanced by the fan-speed control, which minimizes acoustic noise. The extremely low ripple and noise helps the test engineer make extremely accurate current and voltage measurements.

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Specifications

Specifications *(at 0 ° to 55 °C unless otherwise specified)*		**6571A**	**6572A**	**6573A**	**6574A**	**6575A**	**6571A-J03** Special order option
Number of outputs		1	1	1	1	1	1
GPIB		No	No	No	No	No	No
Output ratings							
Output voltage		0 to 8 V	0 to 20 V	0 to 35 V	0 to 60 V	0 to 120 V	14 V
Output current		0 to 220 A	0 to 100 A	0 to 60 A	0 to 35 A	0 to 18 A	150 A
Programming accuracy (at 25 °C ± 5 °C)							
Voltage	0.04% +	8 mV	20 mV	35 mV	60 mV	120 mV	14 mV
Current	0.1% +	125 mA	60 mA	40 mA	25 mA	12 mA	90 mA
Ripple and noise from 20 Hz to 20 MHz							
Voltage	rms	650 µV	750 µV	800 µV	1.25 mV	1.9 mV	1.5 mV
	peak-to-peak	7 mV	9 mV	9 mV	11 mV	16 mV	15 mV
Current	rms	200 mA	100 mA	40 mA	25 mA	12 mA	150 mA
Load and line regulation							
Voltage	0.002% +	300 µV	650 µV	1.2 mV	2 mV	4 mV	600 µV
Current	0.005% +	10 mA	7 mA	4 mA	2 mA	1 mA	7 mA
Transient response time		Less than 900 µs for the output voltage to recover to within 100 mV following a change in load from 100% to 50% or 50% to 100% of the output current rating of the supply					

Supplemental characteristics *(Non-warranted characteristics determined by design and useful in applying the product)*	**6571A**	**6572A**	**6573A**	**6574A**	**6575A**	**6571A-J03** Special order option
Average programming resolution						
Voltage	2 mV	5 mV	9 mV	15 mV	30 mV	4 mV
Current	55 mA	25 mA	15 mA	8.75 mA	4.5 mA	40 mV
OVP	15 mV	35 mV	65 mV	100 mV	215 mV	28 mV
Output voltage programming response time* (excluding command processing time)	30 ms	60 ms	130 ms	130 ms	195 ms	30 ms

** Full load programming rise/fall time (10% to 90% or 90% to 10%) with full resistive load equal to rated output voltage/rated output current.*

Specifications, continued

Specifications *(at 0 ° to 55 °C unless otherwise specified)*		**6571A-J04** Special order option	**6571A-J17** Special order option	**6573A-J03** Special order option	**6573A-J08** Special order option	**6574A-J03** Special order option	**6574A-J07** Special order option
Number of outputs		1	1	1	1	1	1
GPIB		No	No	No	No	No	No
Output ratings							
Output voltage		10 V	15 V	37.5 V	40 V	56 V	50 V
Output current		200 A	120 A	45 A	50 A	38 A	42 A
Programming accuracy (at 25 °C ± 5 °C)							
Voltage	0.04% +	10 mV	15 mV	37.5 mV	40 mV	60 mV	60 mV
Current	0.1% +	125 mA	90 mA	40 mA	35 mA	28 mA	30 mA
Ripple and noise from 20 Hz to 20 MHz							
Voltage	rms	750 µV	1.5 mV	800 µV	1 mV	1.25 mV	1.25 mV
	peak-to-peak	9 mV	15 mV	9 mV	10.5 mV	11 mV	11 mV
Current	rms	200 mA	150 mA	40 mA	40 mA	28 mA	25 mA
Load and line regulation							
Voltage	0.002% +	300 µV	650 µV	1.2 mV	1.4 mV	2 mV	2 mV
Current	0.005% +	10 mA	7 mA	4 mA	4 mA	2 mA	2 mA
Transient response time		Less than 900 µs for the output voltage to recover to within 100 mV following a change in load from 100% to 50% or 50% to 100% of the output current rating of the supply					

Supplemental characteristics *(Non-warranted characteristics determined by design and useful in applying the product)*	**6571A-J04** Special order option	**6571A-J17** Special order option	**6573A-J03** Special order option	**6573A-J08** Special order option	**6574A-J03** Special order option	**6574A-J07** Special order option
Average programming resolution						
Voltage	2.5 mV	4 mV	10 mV	10.5 mV	14 mV	12 mV
Current	55 mA	35 mA	15 mA	12.5 mA	9.5 mA	11 mA
OVP	20 mV	30 mV	65 mV	75 mV	100 mV	85 mV
Output voltage programming response time* (excluding command processing time)	35 ms	35 ms	130 ms	130 ms	130 ms	130 ms

** Full load programming rise/fall time (10% to 90% or 90% to 10%) with full resistive load equal to rated output voltage/rated output current.*

Specifications, continued

Specifications *(at 0 ° to 55 °C unless otherwise specified)*		**6575A-J04** Special order option	**6575A-J06** Special order option	**6575A-J07** Special order option	**6575A-J08** Special order option	**6575A-J09** Special order option	**6575A-J11** Special order option
Number of outputs		1	1	1	1	1	1
GPIB		No	No	No	No	No	No
Output ratings							
Output voltage		160 V	135 V	200 V	100 V	110 V	150 V
Output current		13 A	16 A	11 A	22 A	20 A	15 A
Programming accuracy (at 25 °C ± 5 °C)							
Voltage	0.04% +	160 mV	125 mV	200 mV	120 mV	120 mV	150 mV
Current	0.1% +	10 mA	12 mA	8 mA	15 mA	13.5 mA	11 mA
Ripple and noise from 20 Hz to 20 MHz							
Voltage	rms	2.8 mV	2 mV	3.5 mV	1.9 mV	1.9 mV	2.5 mV
	peak-to-peak	20 mV	18 mV	25 mV	16 mV	16 mV	18 mV
Current	rms	18 mA	12 mA	15 mA	15 mA	13.5 mA	12 mA
Load and line regulation							
Voltage	0.002% +	6 mA	4 mA	7 mA	4 mV	4 mV	6 mV
Current	0.005% +	1 mA	4 mA	1 mA	4 mA	4 mA	1 mA
Transient response time		Less than 900 µs for the output voltage to recover to within 100 mV following a change in load from 100% to 50% or 50% to 100% of the output current rating of the supply					

Supplemental characteristics *(Non-warranted characteristics determined by design and useful in applying the product)*	**6575A-J04** Special order option	**6575A-J06** Special order option	**6575A-J07** Special order option	**6575A-J08** Special order option	**6575A-J09** Special order option	**6575A-J11** Special order option
Average programming resolution						
Voltage	40 mV	34 mV	50 mV	30 mV	30 mV	37.5 mV
Current	3.25 mA	4 mA	2.75 mA	4.5 mA	4.5 mA	3.75 mA
OVP	300 mV	242 mV	360 mV	215 mV	215 mV	270 mV
Output voltage programming response time* (excluding command processing time)	280 ms	250 ms	350 ms	195 ms	195 ms	250 ms

** Full load programming rise/fall time (10% to 90% or 90% to 10%) with full resistive load equal to rated output voltage/rated output current.*

Supplemental characteristics for all model numbers

DC floating voltage: Output terminals can be floated up to ± 240 VDC from chassis ground

Output common-mode noise current: (to signal ground binding post)
500 µA rms, 4 mA peak-to-peak

Remote sensing: Up to half the rated output voltage can be dropped in each load lead. The drop in the load leads subtracts from the voltage available for the load.

Modulation: (Analog programming of output voltage and current)
Input signal: 0 to –4 V for voltage, 0 to 7 V for current
Input impedance: 30 kΩ or greater

Input power: 3,800 VA, 2,600 W at full load; 170 W at no load

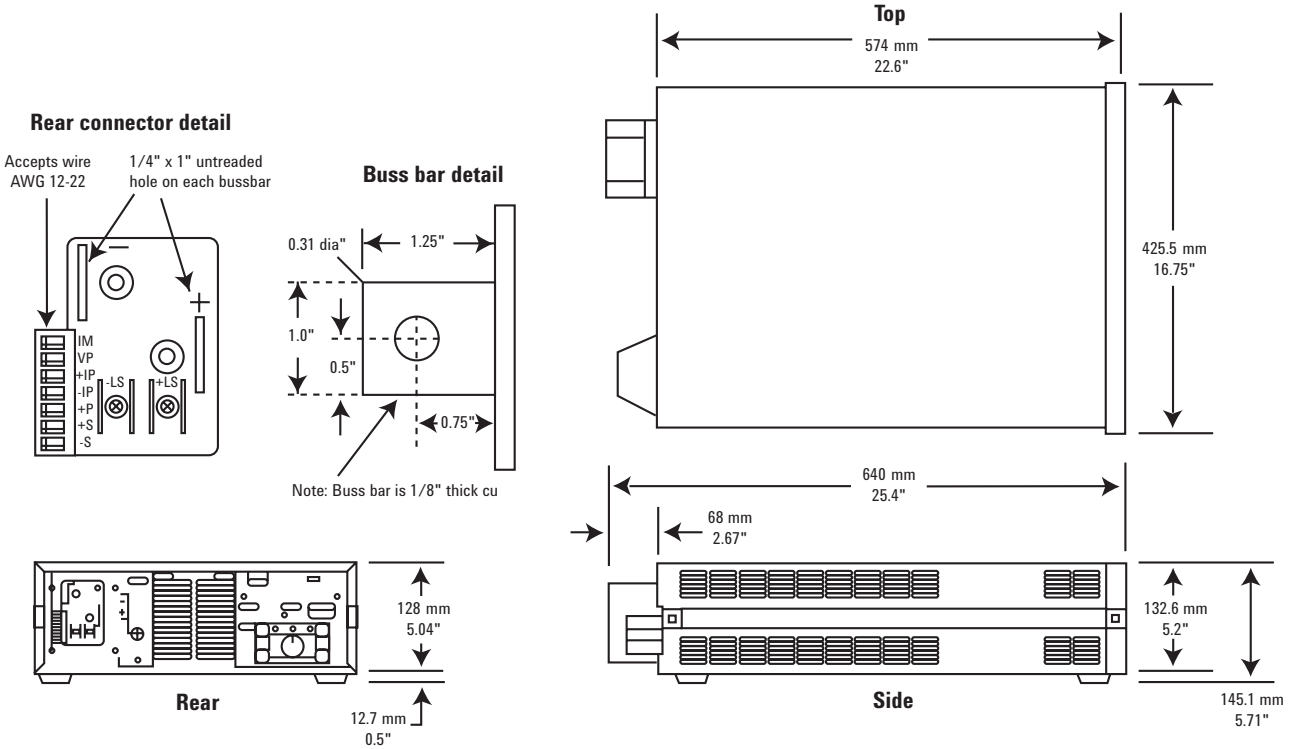
Regulatory compliance: Listed to UL1244; certified to CSA556B; conforms to IEC 61010-1

Size:
425.5 mm W x 132.6 mm H x 640 mm D
(16.75 in x 5.22 in x 25.2 in)

Weight: Net, 28.2 kg (62 lb);
shipping, 31.8 kg (70 lb)

Warranty: One year

Agilent models: 6571A, 6572A, 6573A, 6574A, 6575A



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Ordering information

The 6570 Series power supplies come with full documentation on CD-ROM. The CD-ROM includes user's guide, service manual, quick start guide, and application notes

Opt 200 174 to 220 VAC, 47 to 63 Hz (Japan only)
Opt 230 191 to 250 VAC, 47 to 63 Hz

Opt 0L1 Printed user's guide
Opt 0B3 Printed service manual

Accessories

1CM003A* Rack mount flange kit 132.6 mm H (3U) – two flange brackets
1CP002A* Rack mount flange and handle kit 132.6 mm H (3U) – two brackets and front handles
E3663AC Support rails for Agilent rack cabinets
p/n 1494-0059 Accessory slide kit

Application notes

Agilent DC Power Supplies for Base Station Testing, 5988-2386EN

10 Practical Tips You Need to Know About Your Power Products, 5965-8239E

* Support rails required

Agilent Advantage Services

Agilent Advantage Services is committed to your success throughout your equipment's lifetime. To keep you competitive, we continually invest in tools and processes that speed up calibration and repair and reduce your cost of ownership. You can also use Infoline Web Services to manage equipment and services more effectively. By sharing our measurement and service expertise, we help you create the products that change our world.

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Revised: January 6, 2012

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Published in USA, March 26, 2012
5990-9300EN

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